sandia corporation

lab news

albuquerque · livermore

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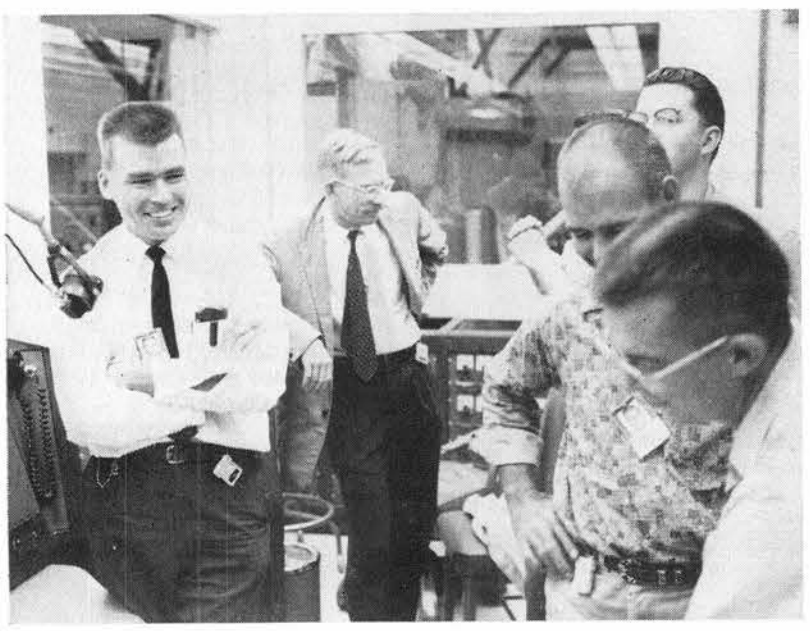
Sustained Reaction Achieved In Sandia Engineering Reactor



CONTROL ROOM of Sandia Engineering Reactor was scene of broad smiles a week ago when instruments indicated criticality had been reached. Left to right are C. A. Anderson, supervisor of SERF Operations Section, J. W. Easley, Director of Radiation Physics, K. E. Nowotny, R. G. Tackett, and J. G. Lareau, all members of SERF Operations Section 5331-2.

A self-sustained chain reaction was achieved in Sandia's Engineering Reactor (SER) Oct. 5 at 12:26 p.m. after receiving an official go-ahead from the AEC's Division of Military Application in Washington, D.C.

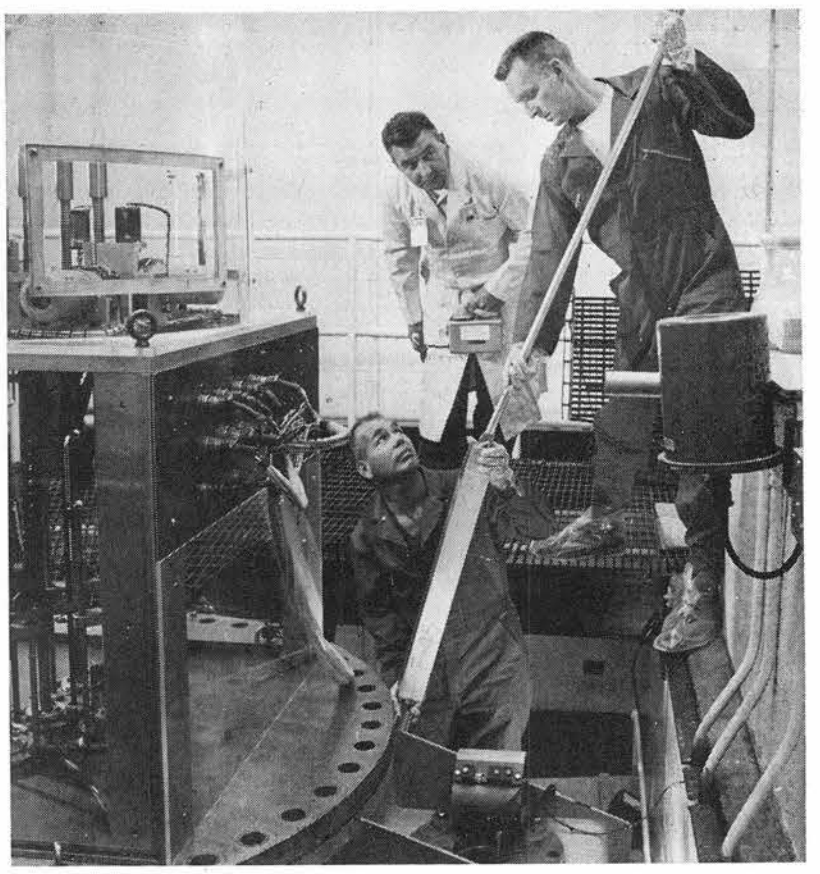
Twenty enriched uranium fuel elements have been loaded into the reactor core. The state of self-sustained chain reaction is termed "criticality" in the terminology of nuclear engineering.

This step followed a series of subcritical experiments performed last month by members of SERF Operations Section 5331-2, headed by C. A. Anderson, during which neutron source multiplication of about 100 was attained at a fuel loading of 15 elements—less than the number required for obtaining a self-sustained chain reaction.

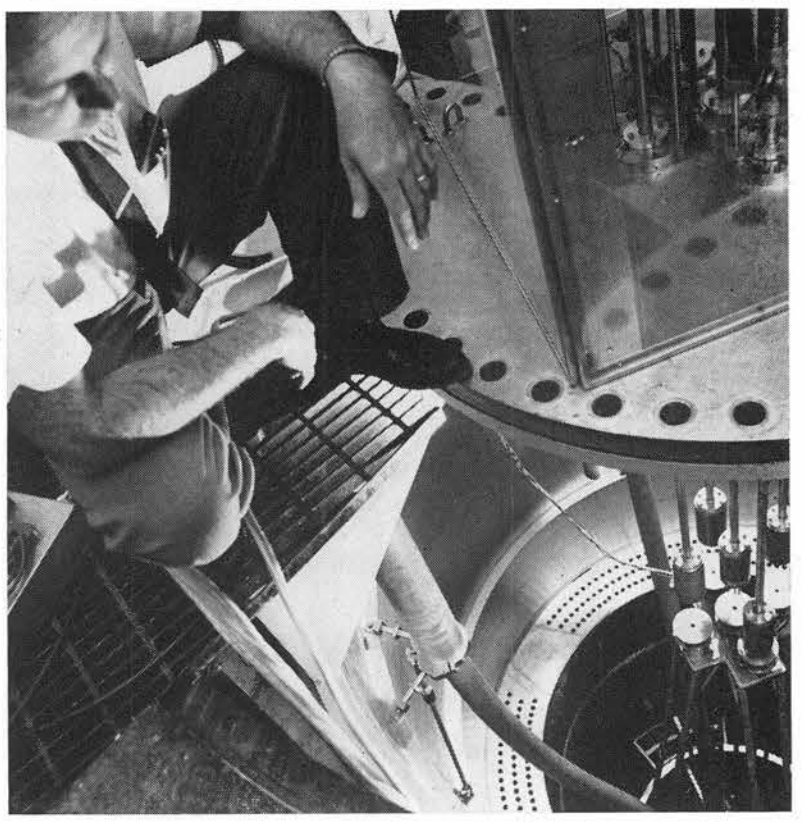
These tests verified the performance of the reactor and, upon this basis, authorization to bring the reactor to criticality and for its continued operation was given by A. W. Betts, Director, AEC-DMA, in a telegram to K. F. Hertford, Manager, AEC-Albuquerque Operations Office.

Further tests are now underway and will continue over a period of about two months before the reactor is used for its designed purpose: determining the effects of nuclear radiation on materials, electronic components and electronic circuitry, as well as fundamental and applied research. The reactor can hold up to 32 fuel elements, each comprised of 168 grams of U-235.

Full operation of SER, expected in late December, will mark the end of three years of planning and construction.



LOADING FUEL ELEMENT into Sandia Engineering Reactor are R. G. Tackett (left) and Lenor W. Morrison (right), both of SERF Operations Section. Health Physics monitor is Francis R. Statzula (3311). Twenty fuel elements were required for reaching criticality last Friday.



INSIDE OF REACTOR pressure vessel gets a final look by R. M. Jefferson (5331-1). Water now stands 21 ft. deep between the fuel elements and top of the stainless steel vessel, providing an efficient radiation shield. Glass-enclosed mechanism at upper right is for control rods.

Dr. Robert Hofstadter

Nobel Prize Winner To Speak at Sandia Thursday, October 25

Dr. Robert Hofstadter, winner of the Nobel Prize in physics in 1961, will speak at a meeting of the Sandia Research Colloquium Thursday, Oct. 25. Dr. Hofstadter will discuss "The Structure of the Nucleus and Nucleons."

He is currently Professor of Physics at Stanford University. His publications include "High-Energy Electron Scattering Tables" and more than 75 scientific papers on various aspects of molecular structure, solid state physics, nuclear physics and review articles on crystal counters, electron scattering, and nuclear and nucleon structures.

Dr. Hofstadter received his BS degree from City College of New York and his MA and PhD degrees in physics from Princeton. He has been a Guggenheim fellow and editor of scientific publications. He is a member of numerous scientific organizations in this country and abroad.

No tickets are required to attend the meeting. It will begin in Theatre Bldg. 815 (use outside entrance) at 2 p.m.

Central Instrument Service Established For Sandia Lab

A Sandia Laboratory Central Instrument Service under the direction of Organization 4611 is now in operation. The new service will handle arrangements for the repair, modification, calibration, loan, and pickup and delivery service of all commercial laboratory instruments (electronic gear) for Sandia and will be the exclusive source of all such service.

A range of special services has been inaugurated such as a master file of instruction manuals which will be supplemented by a file of manufacturers' warranties. Organization 4200 will support the Organization 4600 Instrument Service Section by continuing to provide repair, modification and calibration service: (1) through use of repair subcontracts negotiated with local suppliers by Organization 4300, or (2) emergency service in 4200's own facilities.

As of Oct. 1, all organizations will obtain instrument repair service exclusively through the CIS channel. Contact J. L. Hollenbeck or Norman Zirwas, Organization 4611, extension 5-6201.

Sandia Lab Employees Take Type 1 Sabin Oral Polio Vaccine

Five hundred and ninety-six Sandia Laboratory employees received Sabin oral polio vaccine at Company medical stations Oct. 4 and 5. The Type I vaccine was distributed at the request of the Bernalillo County Medical Association to employees who had not previously received the vaccine through a community program.

First Reports From ECP Campaign Show Promise of Successful Drive

Tallies on the 1962 Employees' Contribution Plan fund drive held Oct. 1-3 at Sandia Laboratory are nearing completion. Members of the ECP Committee are urging employees to return their contribution cards as soon as possible.

As the **Lab News** went to press Wednesday, the total Sandia contributions had reached $161,071, with 89 per cent of the campaign completed. Final statistics on the drive will be compiled and published in the next issue of the **Lab News.**

At this time last year, approximately $131,500 had been reported. The ECP Committee has expressed gratitude to the employees' response to this year's ECP drive.

Immunization Urged

Doctors Predicting Epidemic of Asian Flu During Winter Months

By S. P. Bliss, M.D.
Sandia Corporation Medical Director

The Surgeon General's Advisory Committee on Influenza has indicated that there may be widespread outbreaks of influenza Type A2 (Asian) during the 1962-63 winter season. Although accurate predictions are difficult, recent and past patterns of influenza A and B strongly indicate the possibility of more than the usual number of cases. It is expected that cases of Type B influenza will be infrequent.

Experience has shown that certain groups of the population are greater risks so far as mortality and morbidity are concerned. Since the polyvalent influenza virus vaccine has proven to be of definite value in preventing influenza, members of these high-risk groups should seriously consider obtaining immunization.

Employees and members of their families who are in the following disease categories should give particular consideration to being immunized immediately in order to provide protection before the anticipated onset in mid-December.

A. All persons who suffer from chronic debilitating disease, i.e., chronic cardiovascular, pulmonary and renal disease, especially:

1. Those with rheumatic heart disease.
2. Those with arteriosclerotic heart disease and hypertension, especially those whose heart is not functioning efficiently.
3. Those with chronic bronchopulmonary disease, for example, asthma, chronic bronchitis, bronchiectasis, emphysema and tuberculosis.
4. Those who have diabetes.

B. Pregnant women.

C. Those in the older age groups, i.e., over the age of 45 and especially those over 65 years of age.

Since the family physician is the one who knows the most regarding his patients' medical status, it is best that he be consulted to provide the immunization. Because of this fact and also since the vaccine is plentiful and readily available in the community, the company is not providing this service for the employees.

Because of the anticipated epidemic and the consequent intense discomfort and sometimes prolonged disability caused by such an infection, all employees are urged to be immunized.

Editorial Comment

That Word "America"

Herbert Hoover recently spoke in West Branch, Iowa, on occasion of the dedication of the Herbert Hoover Memorial Library.

"Our people are deeply troubled," he said, "not only about the turbulent world around us but also with internal problems which haunt our days and nights. There are disparaging voices. There are many undertones of discouragement. The press headlines imply that corruption, crime, divorce, youthful delinquency, and Hollywood love trysts are our national occupations."

He reported that amid all these voices there is a cry that the American way of life is on its way to decline and fall.

"I do not believe it," said this much honored American.

Herbert Hoover believes the mightiest assurances of our future are the intangible spiritual and intellectual forces in our people. These, he thinks, we express not by the words **United States,** but by the word **America.**

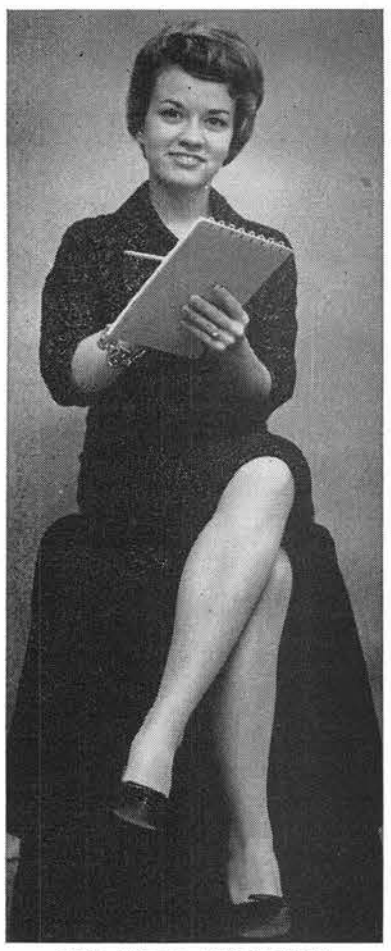
That word **America** carries meanings, Mr. Hoover feels, which lie deep in the souls of our people. It reaches far beyond the size of cities and factories. It springs from our religious faith, our ideals of individual freedom and equal opportunity. It rises from our pride in great accomplishments of our nation and from the sacrifices and devotion of those who have passed on. It lifts the people, he points out, from the ugliness of the day. It has guided us through greater crises in our past. And from these forces, solutions will come again.

Mr. Hoover cites our 186 years of representative government — one which has lasted longer than any republic in history. He sees the tens of thousands of places of worship. He sees the Bill of Rights — the enforced law of the land. He finds reasons for confidence in our educational system from which every year comes a host of stimulated minds and their new discoveries, inventions, and ideas. He feels confidence in all the mighty forces in American life which assure its progress and its durability.

Amid the din of discouraged voices and headlines of gloom he finds comfort in the inner forces of our people which assure America's future and its continued service to mankind.

It is reassuring that a man who knows bitter defeat as well as success speaks confidently of the future. His conviction is that America's true strength lies in its people and not in the material tools of war. This is increased evidence that each American should look at himself carefully.

Do we like what we see?



Billie Hayes (3126/1413)

Take A Memo, Please

Thoughtfulness and responsibility require a goodly amount of mental ability. In turn, they help provide a measure of safety.

Welcome Newcomers

Sept. 24-Oct. 5

Albuquerque
*Howard Christianson 4253
Steven S. Hight 3444
*Edna Morris 4424
Nancy A. Newton 3451
Luis Diego Sandoval 4574
Arizona
John T. Hall, Glendale 4543
Colorado
Louis D. Cropp, Boulder 7111
Georgia
Thomas L. Towne, Atlanta 1113
Illinois
Edward W. Cassidy, Waukegan 3121
Massachusetts
Richard B. Schonberg, Ashland 3111
New York
John L. Ledman, Troy 1121
Arthur W. Lynch, Buffalo 5153
Ohio
James M. Peek, Columbus 5152
Texas
Robert T. G. Lassiter, Bonham 4314
Wisconsin
Thomas D. Sullivan, Minong 2544
*Denotes rehired.

Mr. and Mrs. W. T. Moffat

Wedding

W. T. Moffat (7240) and his bride, the former Mary Jane Kissel of Glendale, Calif., are honeymooning in Hawaii — where they first met.

The couple was married Sept. 1 at Kirtland AFB.

Nearly 100 members of Test Support Department 7240 feted the couple at the Coronado Club on Sept. 24.

Congratulations

Mr. and Mrs. G. W. Hauer, Jr. (7312-1) a daughter, Holly Elizabeth, on Sept. 25.

Mr. and Mrs. John W. Wood (4632-2) a daughter, Nancy Ann, on Sept. 23.

Mr. and Mrs. J. N. Edgeington (2542-1) a daughter, Bonnie Leone, on Sept. 24.

Mr. and Mrs. R. G. Meier (2561-3) a son, David George, on Sept. 12.

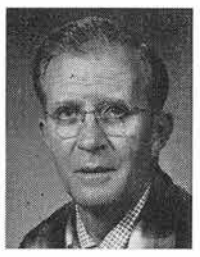
Sandia Employee At Tonopah Hurt In 20-ft. Fall

Lloyd Young (7246-1) was seriously injured in a fall near Tonopah, Nev., on Sept. 29 while gathering piñon nuts.

Lloyd fell about 20 ft. from a tree onto rocky ground. His wife tried to break his fall, and partially succeeded. His injuries included a broken jaw, brain concussion, broken hand, and multiple contusions.

Supervisory Appointments

DARREL E. RIGGS to supervisor of Operations Section III, 3452-3, Electronic Data Processing Department.

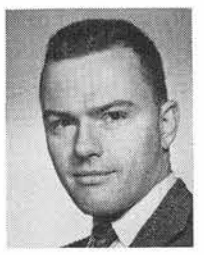


He has worked on the night shift of computer operations since he came to Sandia three years ago.

Previously he was with General Electric Co. for two and a half years while they were building the IRMA computer for the Bank of America. Before that he was in computer work with the University of California Lawrence Radiation Laboratory in Livermore for three and a half years.

A Navy veteran of 30 years, he retired with the rating of Chief Warrant Officer. Much of his duty was in personnel administration, and it was in 1942, when the Navy changed from manual to machine accounting, that he received his first experience in operation of computers.

JACK P. SHOUP to manager of Electronic Components Department 1430.



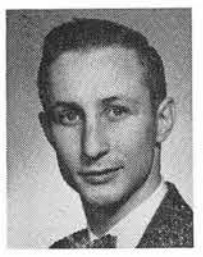
Jack joined Sandia as an engineering assistant 16 years ago. He was promoted to a section supervisor in the Electronic Division in 1949 and a year later was named supervisor of Special Problems Division. He has headed Tube Development Division for the past three years.

Prior to coming here, Jack was graduated from Colorado College with a Bachelor's degree in mathematics and physics.

He served a year in the Air Force.

Jack is a member of Phi Beta Kappa, the American Association for the Advancement of Science, and is a senior member of the Institute of Radio Engineers.

JULIAN E. GROSS to supervisor of Advanced Electronics Systems Division 1425.



"Chuck" has been at Sandia Laboratory since 1951 and has headed a section in Electronic Devices Department for the past four years.

He came here directly from Massachusetts Institute of Technology where he was awarded his Bachelor's and Master's degrees in electrical engineering. While at MIT, he was a cooperative student at Bell Telephone Laboratories for three years.

Chuck served two years in the Navy as an electronics technician.

He is a member of the IRE, Eta Kappa Nu and Sigma Xi, honorary societies.

JOHN R. AMES to supervisor of Antenna and RF Problems Division 1424, Electronic Systems Department.

"Jack" has been at Sandia 10 years and has worked mainly in radar and antenna development. For the past five years he has been a section supervisor.

Previously he was with Westinghouse Electric in Baltimore, Md., for six years in development of FM broadcast transmitters.

He received a BS degree in electrical engineering from the University of Cincinnati and has done some graduate study.

Jack is a member of Eta Kappa Nu and the IRE.

WILLIAM H. CROSS to supervisor of Components Test Division 7332, Planning and Functional Test Department.

Bill has been assigned to the environmental testing organization during his 10 years at Sandia, and has been a section supervisor for the past five and a half years.

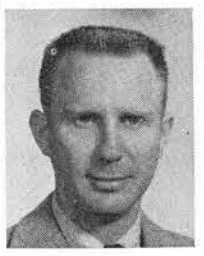
Before coming to Sandia he worked two years in the tractor laboratory at Allis-Chalmers in Milwaukee, Wis.

Bill received his BS degree in mechanical engineering from Montana State College.

He served two and a half years in the Air Force.

He is a registered professional engineer in New Mexico and is a member of the Society for Experimental Stress Analysis.

THOMAS B. LANE to supervisor of Applied Mechanics Division 8118, Livermore Laboratory.



Tom joined Sandia Corporation in 1956 in Albuquerque, where he worked with the Structural Analysis organization. He transferred to Livermore Laboratory in 1958 and was promoted to supervisor of Stress Analysis Section 8116-1 the following year.

Tom received his MS degree in mechanical engineering from Georgia Institute of Technology in 1956. Previously he served for three years as Chief Engineering Officer aboard a Nevy destroyer. He received his Bachelor's degree in engineering from Vanderbilt University in 1951.

He is a member of the Advisory Committee and past Chairman of the Northern California Section of the Society for Experimental Stress Analysis, and is a member of Sigma Xi, Tau Beta Pi, and Pi Tau Sigma, honorary societies.

Sandia Speaker Stresses Need for Technical Writers

The need for technical writers with a firm grounding in the basic sciences was stressed in a recent talk by Leo Gutierrez (8140) at a meeting of the Pacifica Chapter of the Society of Technical Writers and Publishers.

He urged writers to continue their education in math, physics, and various engineering subjects to better equip them for work with engineers and scientists.

Mr. Gutierrez noted the accelerating trend toward use of computers and other machine methods in technical communications, especially in the area of exchange of design information between research and development organizations and their contractors. He pointed out, however, that the exchange of ideas among scientists and engineers could not be turned over to machines. The value of the support offered by technical writers will grow, he said, as the tempo quickens in the exchange of ideas throughout the technical community.

Writers must keep pace, Mr. Gutierrez said, if they expect to continue to provide the help that will be needed more and more in the coming years.

Sympathy

To Lucille Smith (3423-4) for the death of her father on Sept. 30.

To Juan B. (4252-2) and Jose D. Jojola (4252-7) for the death of their sister in Isleta on Oct. 2.

To Tomas Apodaca (4612) for the death of his father Sept. 15.

Sandia Speakers

Following is a list of speakers, titles, and places of presentation for recent talks presented by members of Sandia Corporation.

H. C. Carmody (4612), "Safe Handling and Storage of Hazardous and Toxic Materials," Seventh Materials Management Workshop, Iowa State University, Ames, Ia., Sept. 25-27.

R. H. Dungan and R. D. Golding (both 1124), "Metastable Ferroelectric Sodium Niobate," Fall Meeting of the Ceramic Society, Boston, Mass., Oct. 11-12. Mr. Dungan made the presentation.

W. S. Hunter (3465), "Modification of a Depue Reduction Printer for Use in White Light," Photographic Working Group of the Inter-Range Instrumentation Group, Rochester, N.Y., Sept. 24-27.

C. D. Lundergan (1113), "Spall Fracture," Symposium on Structural Dynamics Under High Impulse Loading, sponsored by the Office of Aerospace Research and Aeronautical Systems Divisions, Dayton, O., Sept. 17-18.

R. A. Mitchell (7132), "Settling Chamber Temperature Distribution Studies," 18th Supersonic Tunnel Association Meeting, Seattle, Wash., Oct. 4-5. R. C. Maydew (7132) made the presentation.

W. B. Murfin (7182), "Phase Measurement in Vibration Testing," 31st Symposium on Shock, Vibration and Associated Environments, Phoenix, Ariz., Oct. 1-4.

K. G. Overbury (2411), "Mercury Barometer Calibration for Remote Locations," 17th Annual Instrument Society of America Instrument-Automation Conference and Exhibit, New York City, Oct. 15-18.

S. C. Rogers (5321), "Prediction of Radiation Damage to Satellite Electronic Systems," International Symposium on Space Phenomena and Measurements, sponsored by the IRE, AEC, and NASA; Detroit, Mich., Oct. 15-18.

G. W. Rollosson (7223), "Brain Function and Structure and Reflex Arc Simulation," Physics Colloquium, New Mexico State University, Las Cruces, Oct. 18.

F. M. Smits (5310), "The Degradation of Solar Cells Under Van Allen Radiation," International Symposium on Space Phenomena and Measurements, sponsored by the IRE, AEC, and NASA; Detroit, Mich., Oct. 15-18.

W. J. Whitfield (2564), "A New Principle for Airborne Contamination Control in Clean Rooms and Hoods," Los Angeles Chapter of the IRE, Oct. 25. R. C. Marsh (2564-2) will present the same paper before the American Association for Contamination Control, Tampa, Fla., Oct. 26.

Ralph Morrison (8155-2) will serve as a session chairman of an Instrument Society of America symposium to be held in New York City, Oct. 15-18. The session is titled "Shock Testing Instrumentation." The session will concentrate on all types of instrumentation shock testing, including application of strain gages for evaluating shock damage, use of piezoelectric instrumentation in the field and the laboratory, and automated programming of shock spectra.

Trophies Presented Winners Sandia Lab Women's Golf Tourney

Three trophies were awarded winners of the second annual Sandia Laboratory Women's Golf Association tournament, played at Los Altos golf course Sept. 29.

Rose Hainlen (4151) won honors for low gross play; Evelyn Schultz (4423) and Eileen Zemka (4423) tied for low net scores. Golf ball prizes were given Phyllis Swartz (3430) and Sandra Borgrink (3151) for least putts, and to Rosalie Crawford (1) for least strokes to green.

During an award banquet at the Coronado Club Oct. 2, new officers were elected for the coming season. They are: Sybil Milligan (AEC-Sandia Area Office), president; Rosalie Crawford, vice president; and Ann Michele (4510), treasurer. Employee Services representative O. J. Foster (3122-2) is the group's permanent secretary.

Many Technical Journals Publishing Articles Written by Sandia Corp. Authors

Current or forthcoming articles authored by Sandia Corporation employees and appearing in technical journals include the following:

R. H. Dungan (1124-2), H. M. Barnett (1413), and A. H. Stark (1124-2), "Phase Relationships and Electrical Parameters in the Ferroelectric-Antiferroelectric Region of the System $PbZrO_3$-Pb TiO_3-$PbNb_2O_6$," August issue, **American Ceramic Society Journal.**

C. B. Pierce (5151), H. H. Sander (5333), and A. D. Kantz (formerly of 5334), "Radiation Induced Hump Structure in the I-V Characteristics of Esaki Diodes," October issue, **Journal of Applied Physics.**

J. W. Moyer (7513-2), "Workmanship—The Key to Improving Quality," July issue, **Journal of Industrial Quality Control.**

R. S. Hooper (7321), "What is Environmental Engineering?" October issue, **Journal of Environmental Sciences.**

D. L. Field (7513-3), "Evaluating Supplier Quality Systems," November-December 1962 issue, **Evaluation Engineering;** "The Economic Value of Supplier Surveys," forthcoming issue, **Industrial Electronic Distribution.**

H. L. Davis (5152), "The Application of Superposition of Configurations to the 2^3S State of Helium," October issue, Journal of Chemical Physics; "A Note on the Antiferromagnetic Spin-Wave Theory of the BCC Lattice," forthcoming issue, **Journal of the Physics and Chemistry of Solids.**

J. W. Easley (5300), "Radiation Effects in Semiconductor Devices," July issue, **Nucleonics.**

J. S. Dohnanyi (5132), "Nuclear Magnetic Relaxation in the Presence of Paramagnetic Ions, II," Sept. 15 issue, **Physical Review.**

J. I. Rosenblatt (consultant to 5425), "Two State Estimation with One Observation on First Stage," Technical Report by the University of New Mexico, Department of Mathematics, also to be published in **Annals of Tokyo.**

George P. Steck (5425), "Stochastic Model for the Browning-Bledsoe Pattern Recognition Scheme," April issue, IRE **Transactions on Electronic Computers;** "Orthant Probabilities for the Equicorrelated Multivariate Normal Distribution," December 1962 issue, **Biometrika.**

D. B. Owen and George P. Steck (both 5425), "A Note on the Equicorrelated Multivariate Normal Distribution," June issue, **Biometrika;** "Moments of Order Statistics from the Equicorrelated Multivariate Normal Distribution," December 1962 issue, **Annals of Mathematical Statistics.**

D. C. Wallace (5152), "Spin Waves in Complex Lattices," Nov. 15, 1962, issue, **The Physical Review.**

L. B. Smith (5414), "Monthly Wind Measurements in the Mesodecline Over A One Year Period," November 1962 issue, **Journal of Geophysical Research.**

R. H. Dungan and R. D. Golding (both 1124-2), and B. O. Ohnysty (formerly of Sandia), "Spontaneous Polarization of Some $(NaK)NbO_3$ Ceramics," September issue, Applied Physics Letters, **American Institute of Physics.**

J. A. Baldwin, Jr. (5314), "Circuits Employing Toridial Magnetic Cores as Analogs of Multipath Cores," April issue, IRE **Transactions of Electronic Computers;** "Reversible Flux as a Source of Irreversible Noise in Multipath Cores," May issue, **Journal of Applied Physics.**

G. L. Eggert (1124), "The Constitution of Mercury-Indium Alloys," September issue, Transactions of the **American Society for Metals;** also available from ASM in special reprint collection of 13 papers on "Liquid Metals."

John M. Lohse (7223-1), "A Visible Latent Image in Photopolymer," September issue, Communications Section of the **Journal of Applied Physics.**

C. E. Land (5132), "A New Complex Permittivity Recording System," Proceedings publication of the 1962 Electron Devices Meeting.

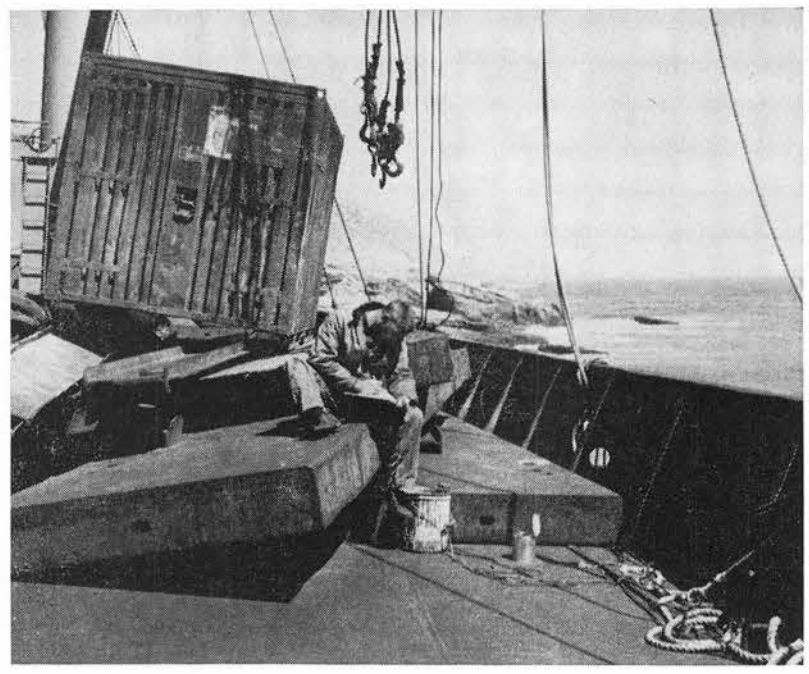
R. O. Brooks (7325), "Shock Test Methods vs. Shock Test Specifications," Bulletin of the 31st Symposium on Shock, Vibration and Associated Environments.

C. W. Harrison, Jr. (1425-1), "Scattering Error in a Radio Interferometer," May issue, IRE **Transactions on Antennas and Propogation;** "On the Receiving Characteristics of a Dipole in Proximity to Two Intersecting Conducting Surfaces," September issue, IRE **Transactions on Antennas and Propagation.**

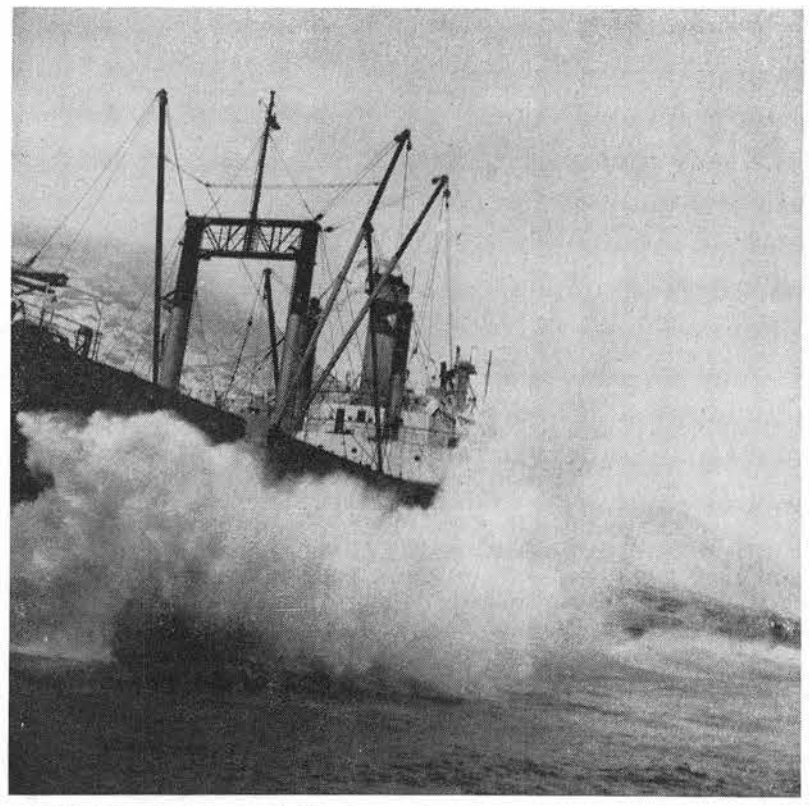
R. W. P. King (Sandia Consultant) and C. W. Harrison, Jr. (1425-1), "On the Impedence of a Base-Driven Vertical Antenna with a Radial Ground System," September issue, IRE **Transactions on Antennas and Propagation.**

A technical paper by P. T. Schoenemann (8123-1), entitled "Real-Time Analysis of Random Vibration Power Density Spectra," has been accepted for publication in the Bulletin of the 31st Conference on Shock, Vibration, and Associated Environments, sponsored by the Office of the Secretary of Defense — Research and Engineering, and the U.S. Naval Research Laboratory, Washington, D.C.

J. R. Garcia and S. H. Peres (both 3133), "Validity and Dimensions of Descriptive Adjectives Used in Reference Letters for Engineering Applicants," autumn issue, **Personnel Psychology.**



VACATIONING PHIL MEAD (8233-1) makes notes amidst the rubble on the deck of the wrecked ship S. S. Chickasaw, gathering material for a film script and future magazine article. He lived on the ship a week.



WRECKED SHIP looked like this when the ground swells struck it broadside, pouring water into the holds and causing the entire ship to shake. The ship lists four degrees toward the sea, and is settling.

AEC Preparing Carlsbad Site For New Project

The Atomic Energy Commission is going forward with site preparation work near Carlsbad for Project Coach, a proposed experiment in the Commission's Plowshare program to develop peaceful uses for nuclear explosives. The work includes installation of electric power facilities, exploratory drilling, and extension of a road.

The site, 28 miles southeast of Carlsbad, was used previously for Project Gnome, the Dec. 10, 1961, Plowshare program nuclear detonation.

Project Coach is being designed as a scientific experiment to study the feasibility of using a nuclear explosive to produce neutron-rich isotopes of known transplutonium elements and, possibly, of elements heavier than those yet discovered.

Although the yield of the nuclear device and the depth at which it may be detonated have not been definitely selected, the yield would be in the range planned for the Gnome experiment and emplacement would be deep underground to contain the detonation.

The detonation has not been authorized and no date for the experiment has been set. Only site preparation has been authorized.

Flag Football League Standings

The Sandia Laboratory flag football league has announced team standings as of Oct. 1, 1962:

Standings	Team	Wins	Losses	Ties
1.	2500, 2600, 4400, 7500	4	1	
2.	3100, 5100, 7200	3	1	1
3.	1100, 4200, AEC	3	2	
4.	7300	2	2	1
5.	1300, 1400, 2400, 7100	2	3	
6.	3400, 4100, 5300	0	5	

Sandia Free-Lance Writer Tells of Tragic Church Building Blazes

A concern for fire prevention is everyone's business. In H. B. Young's case, it's expressed in writing about some unusual fires, along with some suggestions for preventing them.

Hy Young works in Sandia's Components and Equipment Specifications Section 4422-2. In his spare time, he's a free-lance writer. "I've written everything from humor articles to mystery stories, from stories for children to articles about refugees in Hong Kong," he said recently.

Two of his recent projects were articles about fires in churches. "The subject seems limited at first, but when you think about it, church fires result from the same causes as fires in other locations," he continued.

Church fires have a way of being more "successful" — from the fire's viewpoint — than others. Many churches resemble a furnace, with high ceilings, an organ loft and an auditorium acting as a firebox, and a steeple acting as a chimney which gives the fire a better draft and makes it difficult to extinguish. Also, church buildings are often unattended, and fires are undetected in their early, crucial stages.

Last year, fire damaged $25,000-000 worth of church property across the country. And it did untold damage to many people's lives. Many church buildings are improperly wired, and few are equipped with sprinkler systems or other firefighting equipment.

"A lot of it could have been prevented," Mr. Young pointed out. "The fires in churches—as well as those in other locations—resulted from many causes. One of them was thoughtlessness. As a cause of fire, it seems to be one of Man's most dangerous failings. Many such fires are made more tragic, not only by loss of life, but by loss of priceless religious relics as well."

Mr. Young was impressed repeatedly by the statistics he used as background material for his articles. "Time and again, you're struck by the fact that many fires could be easily prevented," he concluded. "If people would only take a little time to consider the danger of fire, a lot of damage and agony could be avoided."

Maj. Gen. Donnelly To Speak Before AOA Members

Major General H. C. Donnelly, Commander of Field Command, DASA, will speak on "The Mission of Field Command, DASA" at a dinner meeting of the American Ordnance Association, Nov. 1. Members of the association and their wives are invited to attend the meeting, to be held at the Kirtland AFB Officers' Club.

Sandians who are officers in the local chapter of the American Ordnance Association include K. G. Overbury (2411), president; R. J. Hansen (4200), first vice president; T. D. Harrison (2561), third vice president; and L. R. Neibel (4330), director.

Sanado Club Members Present Skit During Fire Prevention Week

An original fire prevention skit was presented several times this week on Sandia Base by members of the Sanado Women's Club. Performances were given at the Coronado Club, Officers Club, NCO Club, Zia School, and Sandia Base Elementary School.

Written by Lucy Gray, the skit had a circus theme.

Vacation Brings Weird Experience Of Living on Slowly Dying Ship

Sandians annually find a variety of odd places in which to spend their vacations; high in mountains, deep in valleys, in ghost towns, skin diving or hiking in strange corners of the world. One of the most unusual places chosen this year was a derelict ship off the coast of California, on which Phil Mead (8233-1) lived for a week.

The Chickasaw, an 8000-ton freighter of the Waterman Lines, was bound from Japan to Wilmington, Calif., in February this year with a cargo of transistor radios, surplus military tires, plywood, furniture, toys, and clothing, plus five used automobiles. It ran aground in fog on Santa Rosa Island, one of the Santa Barbara group north of Los Angeles. Crew and passengers were uninjured.

Salvage companies have been working when weather permits to empty the ship of cargo before the ship is broken up by wave action. Don Knudsen, a former Sandian, is making a movie of the operation. Phil is working on a script for the film, and also hopes to sell a magazine article based on the adventures of the salvagers.

"It's a weird experience, living on a dead ship," Phil says. "We slept in cabins on the landward side of the ship, in case she rolled over into the sea during the night. We had no water except what was in the ship's bunkers, and no lights after the emergency power unit was shut down at about 7 o'clock. If we read, it was by candlelight.

"While we waited for sleep, we could hear the gurgling of water in the holds; the creaking and groaning of metal as the ship reacted to water pressures, and every five minutes or so, a series of ground swells which hit the ship broadside with a tremendous crash, like a cannon being fired, so that the whole ship shuddered."

"This sort of thing takes getting used to," Phil adds. "But after a while, I slept like a baby—

Occasionally, when he wasn't taking pictures, writing, or just "goofing off," Phil helped the salvagers bring cargo from the holds to the upper deck to dry.

"Those guys are pretty rugged," Phil comments. "They work from eight to 10 hours a day in the holds, in dim light, and often up to their knees in moving water. Then after dinner they play cards or spin yarns until midnight.

"We were always wet, and often cold," Phil recalls. "The wind blew constantly. But we ate and slept well, and there was certainly plenty of fresh air and exercise. And being able to see how the stars and the ocean looked from that dead ship on a desolate island was worth the whole trip."

D. I. Wortman Named Director Budget Division, Albuquerque Operations

Don I. Wortman is the new Director of the AEC Albuquerque Operations Office Budget Division. He succeeds Laddie W. Otoski who was recently named a Deputy Assistant Manager in ALO's Office of Administration.

Mr. Wortman was formerly Deputy Assistant Director for Program Analysis and Budget in the Division of Military Application at the AEC's Washington headquarters.

What Do You Know About Your Government?

You can have fun with this quiz. Try it on yourself, your family, friends. This is the last of three parts.

Part III

Supply the word or words needed to answer the following correctly.

36. What is the name of the present Speaker of the United States House of Representatives?

37. What other title does the Commander-in-Chief of the Armed Forces have?

38. Who is the Vice President of the United States?

39. Who are the United States Senators from your state and to what party does each belong?

40. Is your state divided into Congressional Districts. If so, in which one do you live?

41. Name your United States Representative (or Representatives) and his party affiliation.

42. Name the three branches of the federal government.

43. Which party controls the current Senate?

44. Who is the United States Ambassador to the United Nations?

45. What two groups make up the traditional so-called "Coalition" in the House?

46. Should both the President and Vice President not be able to carry on, who is next in succession to the Presidency?

47. Is the Attorney-General a member of the President's Cabinet?

48. In the event of a tie vote in the Senate, who casts the deciding vote?

49. For how many years does a Senator serve when elected?

50. What is the maximum number of times a person may be elected President?

(Answers at bottom of page)

Big Effort Necessary to Make ECP Campaign Reach Success

Each year, about the time the ECP Drive gets underway at Sandia Laboratory, ECP Committee members and other volunteer workers find an empty conference room or other workroom and set up an array of typewriters, desks, and file cabinets. Then, for the duration of the ECP drive, and for many days thereafter, their workroom serves as ECP headquarters, the place voluntary workers and ECP solicitors call home.

In many ways, the headquarters resembles an office at the polls after an election; it has that flavor of transience, impermanence; but you can sense that while it's there, it's accomplishing a great deal.

Part of the work involves checking through cards brought to the office by solicitors. They're the yellow tab cards familiar to employees during the days of the drive. It's necessary to check each one of them against a "tab run" list of Sandia Lab employees.

Not all of the cards processed during the drive come to this office. Some, the cards of employees already belonging to ECP, go directly to accounting and tabulating workers.

While some of the office workers check cards, others check in solicitor captains. The captains are bringing the cards filled out for contributors to the ECP drive who are not members of the Plan, and for employees they have enrolled as new members.

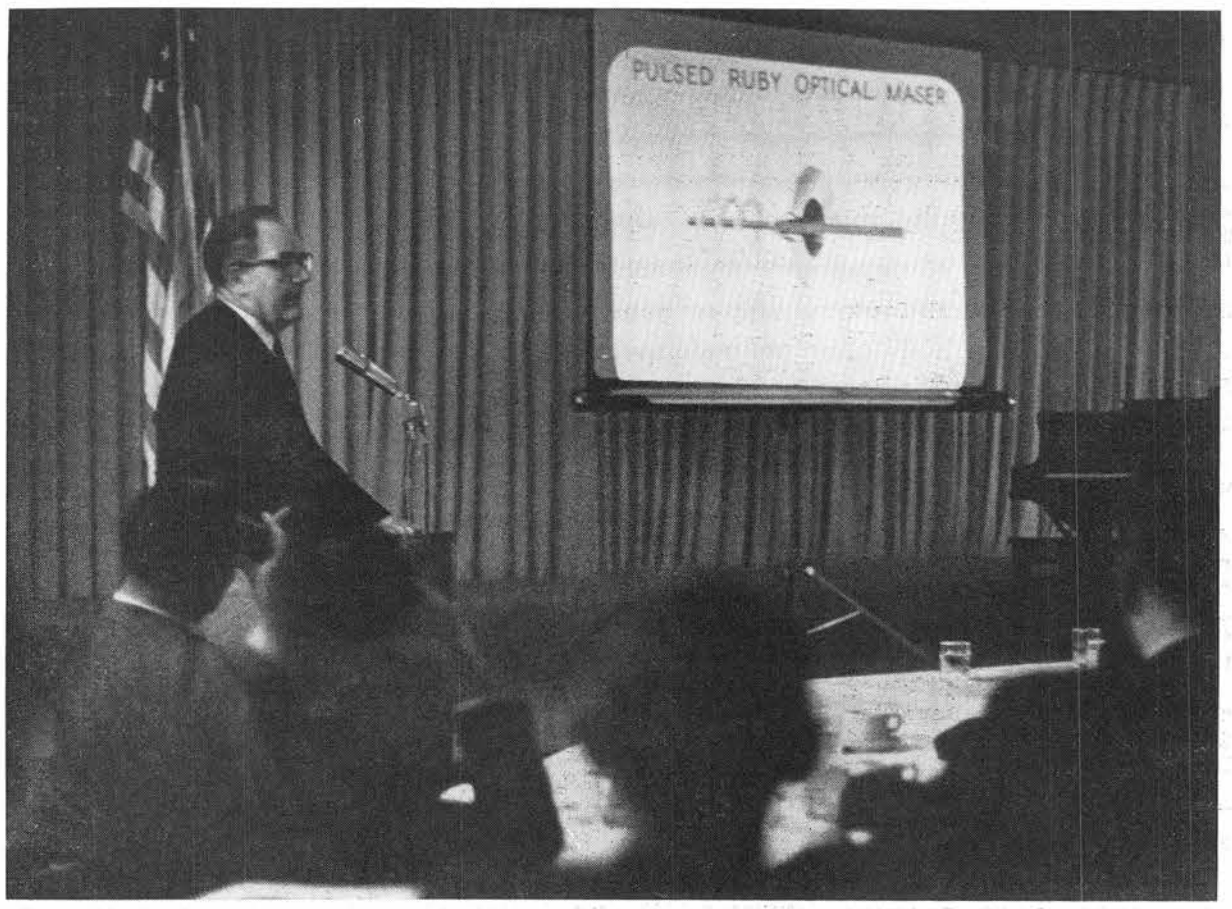
While these activities are going on, other ECP workers answer occasional questions telephoned into the office. All in all, it's a busy place, and a visit to it is heartening. Here, perhaps more than any place else, one sees the effort behind the drive. It takes an enormous amount of hard work to conduct such a drive, and the headquarters office provides a place to see all of that effort concentrated in one direction.

George Wayland (3433-1) is the fund drive coordinator, and he's been busy for months making preparations, contacting solicitors and other workers, attending committee meetings, and acting as general liaison man for the drive.

Burt Dieruf, Fred James (both 3433-1), Bob Colgan, Jim Mitchell (3431-2) and George have shown the ECP filmstrip, "Let's Face It." 193 times since the drive began. "We can almost narrate the strip from memory," George explained recently. "But its message, no matter how many times you hear it, is still impressive."

A number of factors probably contributed to this year's increased ECP membership. Committee members feel that the filmstrip had a good deal to do with it. George pointed out that it's heartening to watch the typical audience's reaction to the strip. "They're silent, for the most part," he pointed out. "And you have the feeling after most showings that it's a thoughtful silence. That's a good indication that employees are thinking carefully about their part in the Employees' Contribution Plan.

THE PRIVILEGE OF SERVICE is exemplified in these workers at ECP Headquarters office in Bldg. 836. Standing (l to r) John Leslie (3433-1), Barbara C. Garcia (4110), J. W. Hook (4110). Seated (l to r) Ernestine Riggs (3150), Janice Sharp (4423-2), and Geraldine Layne (3126). ECP Drive was completed October 3.



"APPLICATION OF OPTICAL MASERS" was topic of an address by G. C. Dacey, Vice President — Research, Sandia Corporation, at recent IMOG meeting held at Sandia Laboratory. AEC contractors attended meeting.

IMOG Completes 3-Day Meeting At Sandia Lab

Sandia Laboratory was the scene of an annual meeting of the Interagency Mechanical Operations Group, Sept. 25-27. Highlights of the three-day conference were addresses by John S. Foster, Director of Lawrence Radiation Laboratory, on "The Future"; and George C. Dacey, Vice President — Research, Sandia Corporation, on "Application of Optical Masers."

S. P. Schwartz, President of Sandia Corporation, opened the conference. Ralph S. Wilson (7140), chairman of the IMOG steering committee, served as chairman of the first session. C. R. Barncord (8150) was chairman of the afternoon session, Sept. 26; and W. A. Gardner (7300) was chairman of the last session, Sept. 27.

Other Sandia Corporation speakers on the program included J. D. Gilson (8151), B. E. Barker (8142), C. M. Potthoff (8151-2), D. W. Ballard (2564), and W. A. Gardner (7300).

Naval Reserve Unit Seeks More Members

Vacancies exist for several lieutenants and yeomen in Naval Reserve Weapons Training Unit 703, according to H. G. Laurson (7252), commanding officer of the group. Eligible members of the Naval Reserve are invited to contact Mr. Laurson at AX 9-1656 for further information.

VISITORS from Atomic Weapons Research Establishment, British counterpart of Sandia Corporation, enjoy copy of **New Mexico** magazine with S. P. Schwartz, President of Sandia Corporation, right; (l to r) Harold H. Hartley, Fred L. West, and J. Peter Dainty. They attended annual meeting of Interagency Mechanical Operations Group (IMOG) at Sandia Lab.

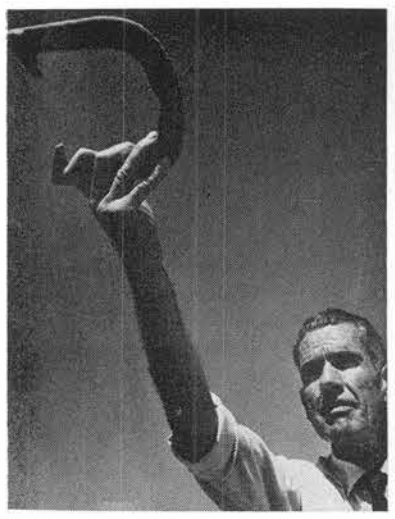
DISCUSSION of IMOG meetings held recently at Sandia Lab absorbs (l to r) John Foster, Director of Lawrence Radiation Laboratory; Walter Arnold, Lawrence Radiation Laboratory; and Ralph Wilson (7140), chairman of IMOG Steering Committee. Meeting was held Sept. 25-27.

What Do You Know About Your Government?

Quiz Answers

Part III

36. John W. McCormack. 37. President. 38. Lyndon B. Johnson. 39. New Mexico: Sen. Dennis Chavez (Dem.) and Sen. Clinton P. Anderson (Dem.). California: Clair Engle (Dem.) and Thomas H. Kuchel (Rep.). 40. California—yes; New Mexico—no. 41. New Mexico: Joseph M. Montoya (Dem.) and Thomas G. Morris (Dem.) both at large. California: J. F. Baldwin (Rep. Contra Costa County), Jeffrey Cohelan (Dem. Alameda County), C. S. Gubser (Rep. Santa Clara County), W. S. Mailliard (Rep. San Francisco County), J. J. McFall (Dem. San Joaquin County), G. P. Miller (Dem. Alameda County), J. F. Shelley (Dem. San Francisco County), J. A. Younger (Rep. San Mateo County). 42. Legislative, Executive, Judicial. 43. Democratic. 44. Adlai Stevenson. 45. Conservative Republicans and Southern Democrats. 46. Speaker of the House of Representatives. 47. Yes. 48. The Vice President. 49. Six. 50. Two.



PARKER BURNS took the Sandia Lab single horseshoe championship for the fourth time during final play last week. He defeated 22 winners of organizational tourneys.

Parker Burns Earns Fourth Top Honor For Horseshoes Skill

For the fourth time, Parker Burns (2643) has emerged champion of the Sandia Laboratory singles horseshoe tournament. Parker held the championship in 1957, '60, and '61. He sewed it up this time by defeating 22 organizational champions and runnersup who participated in the tournament.

Parer lost only one game to Ted Monahan (4614) to mar an otherwise perfect record. Ted was one of the four participants who tied for second place in the tourney. Others were John Hiller (2313), Jim Taylor (4224), and Loomis Eversgerd (4514). A round-robin was played for second place this week.

In addition to taking the Sandia Lab tournament, Parker won third place honors in the recent State contest held at the Belen County Fair.

Meet your reporter

Jane Chase Handles Communications At Sandia's Tonopah Test Range

Jane Chase (7246) is in the center of things at Tonopah Test Range. She handles communications for range operations. As a **Lab News** reporter, Jane has sent in items about TTR activities since June 1961, the date when she transferred to Tonopah. She had worked in Division 5111 at Sandia since September 1956.

Jane likes living in the small silver-mining town of Tonopah and exploring the surrounding hills and desert on horseback with her family of three sons and two daughters.

Jane is secretary of the Tonopah Photo Hobby Club and a member of a bowling team. What little spare time is left, she spends sewing or knitting.

Reporter Jane Chase

—a busy person in the middle of range operations—

Skiers Meet Monday To Make Plans for First Snowfall

No snow yet, but skiers' anticipation is apparently growing.

The Coronado Ski Club will meet Monday, Oct. 15, at 7:30 p.m. at the Coronado Club to discuss plans for the forthcoming season.

Jack Hanna (3424), Tom Edrington (1321), and Wayne Cook (7311) will be on hand with a report and slides on skiing in Chile. There will be free refreshments.

President Max Newsom (7164) especially urges prospective members and beginning skiers to attend this first meeting of the season.

Help! Help!

Have a Sept. 30, 1960, issue of the **Lab News** in your desk or at home? The **Lab News** office in Bldg. 610 needs several copies.

Coronado Club Beatniks Will Convene Oct. 27

With this issue, the **Lab News** resumes publication of "Coronado Club Events," a bi-weekly calendar which will replace the "Coronado Club Calendar" and "La Voz de Coronado." The new calendar will cover events of interest to Coronado Club members and guests between the dates of publication of the **Lab News** each month.

The Club has scheduled a Beatnik Hallowe'en costume party for the evening of Oct. 27, featuring prizes for costumes and the music of Tommy Kelly.

The NORAD dance band has been scheduled for an appearance Oct. 12. Dancing will be from 9 p.m.-1 a.m.

A member of the New York Stock Exchange is sponsoring a series of classes in investment counseling Monday evenings at the Club. The free course is intended to acquaint the public with stocks, bonds, economics in general, and the role of the small investor. Classes will be held at the club 7:30 p.m., Oct. 15 and 22.

coronado club

Oct. 12 - 27

				Friday 12 Social Hour 4:15-6:15 Bill Wach NORAD Band Dance 9-1	**Saturday** 13 Supper Club Frank Chewiwie Quintet
Monday 15 Open Pairs Bridge 2nd Sess., 7 p.m. Invest. Coun. 7:30 p.m.	**Tuesday** 16 Dance Instruction 7 p.m. — Basic 8:30 — Advanced	**Wednesday** 17 Game Night 8 p.m.	**Thursday** 18 Olympiad Bridge 7:30 p.m. $1.00	19 Social Hour 4:45-6:15 Tom Kelly Supper Club Al Hamilton	20 Supper Club George Davies
22 Master Point Bridge 7 p.m. Invest. Coun. 7:30 p.m.	23 Dance Instruction 7 p.m. — Basic 8:30 — Advanced	24 Ladies All Day Bridge 9:30 a.m. ACF Bridge 7 p.m.	25 Bridge 7:30 p.m.	26 Social Hour 4:45-6:15 Sol Chavez Supper Club Tom Kelly	27 Beatnik Costume Hall'wn Ball — Tom Kelly Monthly Buffet Members: $2.60 Guests: $3.60

EVENTS

SHOPPING CENTER • SHOPPING CENTER • SHOPPING CENTER • SHOPPING CENTER • SHOPPING CENTER

CLASSIFIED ADVERTISING

Deadline: Friday noon prior to week of publication unless changed by holiday.

RULES

1. **Limit: 20 words**
2. **One ad per issue per person**
3. **Must be submitted in writing**
4. **Use home telephone numbers**
5. **For Sandia Corporation and AEC employees only**
6. **No commercial ads, please**
7. **Include name and organization**

FOR SALE

FOR 6.5x55 Swedish Mauser almost new reloading dies and case holder, $9. Taylor, AL 6-3774.

BASSET PUPPIES, AKC reg. 7 weeks old, $60 up. Bahlman, DI 4-2498.

GE ELECTRIC STOVE, $75; 8x8x16 cinder blocks, 15c each. Black, AX 9-3369.

GAS RANGE, 36", $70; refrigerator, 11 cu. ft., $85. Rosenberg, 268-1098.

BABY bathinette, bassinet, automatic sterilizer, jumper chair. Sullivan, AX 9-1343.

'58 FORD Fairlane convertible, red and white, auto. trans., R&H, w/w, V-8 engine, 35,000 miles, $800 or best offer. Horning, 298-0880.

HOLLYWOOD BED, bookcase headboard, mattress, springs, $20. Meikle, AX 9-4640.

PHOTO ENLARGER, Federal model 240, 35 mm to 2¼x2¼, $15. Graham, AM 8-8967.

TENT, 9x12, one piece, new, umbrella type, $42.50; transit level, no tripod, $65. Pitti, AL 6-1229.

BACH CORNET and mutes, $125. Hayes, 298-4682.

CCM ICE SKATES, 1 pr. girl's white size 10, 1 pr. boy's black size 13, $5/pr. Harper, AX 8-0146 after 5.

SMITH-CORONA Compact 200 electric typewriter, almost new, $150 or best offer; free-standing fireplace screen, tools, wood grate, $15. Jeffs, 299-5661 after 5 p.m.

'60 CHEVROLET IMPALA, 4-dr., standard, 20,480 miles, original owner. Peckumn, 825 Kentucky SE, 256-3363.

'58 PONTIAC 2-dr., straight shift. Newton, 265-1042.

TWO PAIR green, lined, pinch-pleated drapes, will fit 6' window, 36" long. Donaldson, AL 5-8987.

'59 PONTIAC Catalina Sports Coupe. Zimmerman, 268-2248 after 5 p.m.

'55 CHRYSLER New Yorker, 4-dr., power, new paint, new seat covers, R&H. Grant, 255-0576.

GREEN PARAKEET w/new cage, accessories, $5; double bed size springs, 90 coils, three plane lateral support, $5. Atkisson, 299-7536.

THREE MALE HAMSTERS w/large cage, $6. Berry, 299-4765.

TWIN BED, maple bookcase headboard, metal frame, springs, mattress. Evans, 205 Morningside Dr. NE, 268-8001.

BEDROOM SET, bed, dresser, 2 night stands, blond mahogany, $100 or best offfer, must sell. White, AL 6-4578.

CLARINET, Pedler Premier, wood, playable condition, can be repaired, $25; Hi-power rifle, .300 Savage model 99G, $75. Freyermuth, AX 9-2053.

16MM MAGAZINE CAMERA, $45; dual laundry tubs, $8; tricycle, $5; drafting set, $8; moulds for concrete barbeque, $10. Hueter, CH 2-1620.

BABY PLAY PEN; ski boots. Spray, AX 9-0412.

.303 LEE-ENFIELD sporter, sling and recoil pad, orininal peep sight, $25. Quigley, AL 6-6622.

'59 VOLVO, 4-speed, new tires, can be seen anytime at 1010 Palomas Dr., SE, Apt. A. Ayers.

HEATHKIT FM3A hi-fi tuner, $19.98. Sektnan, AX 8-0373.

DESK; clothes dryer; limed oak corner table; 18-watt amplifier; limed oak bass reflex enclosure w/12" triaxial speaker. Goen, ext. 55172.

ELECTRIC GUITAR, Gibson, dual pick up, thin body, double cutaway w/amp., $225. Holovka, 243-0771 after 5:30 p.m.

6.50x16 6-ply tires, tubes, mounted on wheels for Chev. pickup, fit others, $5 each. Giddings, 255-5696.

DINING ROOM SET, 6 chairs, sabled oak, modern style, $69; mahogany hi-fi cabinet, $29. Winblad, DI 4-3109.

'52 STUDEBAKER PICKUP, 25,000 miles. Anderson, 1696 Del Sur, SW, TR 7-9605.

COMPLETE POWER STEERING and brake system for '56 Ford, $40; Crossman 600 semi-auto. 10-shot pistol, new, guaranteed, $20. Ernst, 268-9414.

FREE, only 5 left, long-haired kittens, 8 weeks old. Osterby, AX 9-4606.

36" KENMORE electric range w/grill, $60; 12'x18' rug w/pads, $20. Chapman, AX 9-3946.

'56 PONTIAC WAGON, 9 pass., new auto. transmission, tutone, w/w tires, under book. Lucero, 298-3656.

DUAL-PICKUP electric cutaway guitar w/case and amplifier. Rea, 268-9633 after 5 p.m.

'57 CADILLAC convertible, new tires, new top, R&H, red leather interior, low mileage. Etherton, 268-7755.

'54 DODGE Royal, 4-dr., R&H, auto. transmission, $300 or trade for encyclopedia and little cash, or what have you. Lopez, AX 9-0941.

UPRIGHT PLAYER PIANO, best offer over $100. Laursen, AX 9-1656.

MOSSMAN SACRAMENTO, completely landscaped, Montgomery-Cleveland schools, 4-bdr., den, laundry room, a/c, fireplace w/bookcases, built-ins, $20,000. Smith, 3712 Alvarado NE, 299-8676.

FEMALE SEAL POINT Siamese kittens, $5. Schultz, AX 8-2731.

WRECKING 1946 International, '50 Studebaker, '51 Kaiser, selling parts; Universal vacuum, $8; Chrysler convertible, $30; 1938 Chrysler $60. Penn, BU 2-3997.

NEXT

DEADLINE

FOR SHOPPING CENTER ADS

Friday Noon, Oct. 19

APPROX. 210 sq. ft. gold colored cotton loop carpet and pad, just laundered, ½ original cost. Baxter, 1610 Bayita Lane, NW, DI 4-7601.

'62 LAMBRETTA SCOOTER, used only 2 months, 1200 miles, $350. Caffo, AL 6-4624.

AMMOR TOY PUPPIES; rock tumbler. Smith, 4667 Idlewilde Lane SE, AL 5-3533 after 5 p.m.

WINTER COAT, greybeige, size 10-12, $10: box springs for dbl. bed, $10; bed frame, $2. Daily, 255-2690.

'48 WILLYS station wagon 52, 6-cyl. Reed, AM 8-8839.

MATCHLESS-150, 1960 model, $175 or best offer; telefoto lens for 8 mm movie, $8. Kuhn, AX 9-1898.

SPORTERIZED .30-06 Springfield rifle, $38. Klett, DI 4-9021.

WESTINGHOUSE automatic washer, reconditioned, will guarantee, $35. Bear, AX 8-2744.

DINETTE SET, drop-leaf table, 4 chairs, formica top, black metal legs, grey plastic chair covers, $42.50. Coleman, AL 5-7480.

3-BDR, 1¾ bath, fully carpeted, fireplace, garage, a/c, Southwest landscaping, $17,500. Landrum, 4022 Alta Monte NE, DI 4-3940 after 5:15 p.m. and weekends.

TYPEWRITER, Hermes standard, manual, Director pica type, used very little, $150. Gillespie, AL 5-6421.

$800 DOWN, 3 bdr. (office-bedroom w/built-ins), family kitchen, skylight, 1¾ baths, den w/fireplace, double garage. Get brochure. Cafferty, AL 6-4090.

30 WATT amplifier, tapped screen output using EL-34 tubes, $15. Howard FM tuner in mahogany case, $20. Kreitler 299-8494.

WINTERS PIANO and bench, mahogany spinet, full keyboard, $395. Kelly, AL 6-4982 after 5 p.m.

'55 DODGE, clean, 4-dr., power brakes, steering, windows and seats, factory air, tires like new. Kelly. AX 8-1107.

NEW 3 BDR, 1¾ baths, garage, never occupied, convenient to everything especially Sandia Base, $12,800. Hannan, 265-0568 after 5 p.m.

GAS FURNACE, 80,000 BTU Lennox FA, adjusted for butane, $75. Smart, 293-0987.

LARGE BABY BUGGY, $10; baby stroller, $10. Webb, 256-6626.

14" CAMPING trailer, fully equipped, needs to be rebuilt, $175. Will trade. White, 3217 La Veta Dr. NE, AL 5-9479.

MUD AND SNOW tires, one pair, size 6:40x13, set of chains to fit, all for $25. Boyes, 282-3250.

CHILD'S BEDROOM set: bookcase headboard, mattress, box spring, double dresser, desk and six other matching pieces. Hobbs, AL 6-4694.

LUGGAGE RACK, chrome, hardwood, detachable; Perspex windwings; tool kit; floor mats; all to fit TR-3 or MGA, $20. Dehon, 898-2219.

GIRL'S 26" bicycle, ridden very little, $25; 80 ft. flexible plastic pipe, 1" ID standard weight, new, $8. Burger, 299-8626.

CORNER TABLE, mahogany, $10; lamp table, $5; secretary, $30; dinette set, six chairs, serving table, $40. Carlson, 299-0258.

5 hp MOTORCYCLE, Allstate, geared as Tote-Gote, recent overhaul, $65; 3 BDR Roberson, 1¾ bath, flagstone patio, built-ins, double garage, AC, $2800 equity. Woolrich, AX 8-0563.

GAS RANGE, Kenmore 42", four burner and griddle, large oven, $30. Clenney, UN 4-8394.

2 BLOND end tables and round coffee table. Formica tops, $20. Hayes, AX 8-1482.

BEDROOM SET, 5 piece, maple finish, springs and mattress not included; mahogany console RCA 17" TV. Willard, AL 5-2429 after 5:30 p.m.

CLEANING ATTACHMENTS for Hoover upright vacuum cleaner, delux 5 piece set, $10. May AX 9-2624.

CLASSICAL GUITAR and case (new), $70. Pitts, 298-4401 after 5 p.m.

4 BDR, 1¾ baths, fireplace, elec. kitchen, AC, landscaped, many extras, in Paradise Hills, double garage, closed patio. Duvall, 898-2295.

MOBILE RIG, Johnson Viking; Pentron 2-speed tape recorder; B&H 16mm sound projector; two speaker enclosures. Sell or trade. Laskar, AX 9-1024.

BEAGLE, 3 years old, spayed, loves children, needs good home; Stauffer couch, sell or trade, deluxe model. Vulgan, 268-5669.

CORNER LOT, 24'x24' unfinished building, well, NE Valley, $2300 total. Sanchez, 344-0638.

'57 CHEVROLET 210, 4-dr. hardtop, PG 283 engine, 4 barrel carb. $750. Bradshaw, AM 8-8708.

'52 CHEVROLET Belaire, R&H, stick shift, new w/w recaps, engine recently overhauled. $250. Gearhart, AL 5-7409 after 5 p.m.

'59 TR3, cloth and tonneau cover, w/w, wire wheels, new tires, $1300. Davis, 2607 Stevens Dr., NE.

TAPPAN GAS RANGE, glass in oven door, 4 burners, broiler, $40, see after 6 p.m. Orendorff, AM 8-9753.

ROYAL portable typewriter, $25. Gregory, AM 8-2022 after 5 p.m.

TIJERAS MT. CABIN w/large den, fireplace, natural gas, electricity, deep water well, 15 min. from Base. Baca, 242-9721.

'57 RENAULT DAUPHINE, $285. Fife, BU 2-3206 Monday or Wednesday evening.

ONE NEW 110 volt DC current, 4 cyl. Kohler light plant, 24 volt auto. start, 1500 watts. Camp, 298-5107.

CAMPER TRAILER, 15' '61 Deville, sleeps 5 adults, 12-volt electric brakes, butane stove and lite, $1050. Scalf, AX 8-3908.

9 PC. MAHOGANY DINING SET, large table w/6 chairs, buffet, breakfront, $200, originally $750. Valdez, AM 8-5375.

STORKLINE CRIB, $35; man's CCM figure skates, size 7. Talley, 532 Mesilla SE, AL 6-6520.

16'x16' HEAVY CANVAS TENT, $65; two room evaporative coolers, $15 and $10. Breitenbach, 268-7900.

2-WHEEL HAULING TRAILER w/bumper hitch, $60. Barber, 299-4287.

'57 CHRYSLER WINDSOR, auto. trans. PB, PS; '60 Stude Lark, auto. trans. PS, good price for cash deal. Baumgartner, AL 6-9140.

'56 CHEV. BELAIRE 4-dr., V8, $495. Shaeffer, AL 5-9473 after 5 p.m.

WANTED

RIDE to and from Annunciation School for two second and third grade boys, from Menaul-Morris area. Morrow, AX 8-1762.

CHILDREN to care for in my home, located near Menual and Louisiana. Parr, AX 9-0337.

RIDE from 7th and Coal SE to Bldg. 802. Sandoval, 243-2411.

RIDE from 1412 Mesilla NE to vicinity of Bldg. 802. McCoy, ext. 23236.

TRADE aluminum oxide #50 grit for #320. My two lbs. #50 for your one lb. of #320. Wagner, AX 9-2347.

GAS LOGS for use with natural gas; small concrete mixer. Hill CH 3-3493.

RIDE from corner of Robin and Hendola NE to vicinity of Bldg. 832. Ream, AX 9-2076.

ELECTRIC GUITAR with amplifier, good quality. Vogt, AL 5-1324 after 5 p.m.

RIDE OR join car pool from Gabriel Village. McDonald, 299-9269.

RIDE from 822 Riverside SW to Gate 1 to 6, or will share pool. Pauline Selph, 877-3651.

SKI EQUIPMENT for man: boots size 9, skis 6'9" and poles, pants size 30". Stump, AM 8-7754.

I NEED those aquariums gathering dust in your garage to put in school classrooms. The children would really appreciate them. Becker, AX 9-2539.

FOR RENT

TRAILER SPACE, gas, adults only, no pets, close to bases. Bennett, AX 9-1161 after 6 p.m.

LOST AND FOUND

LOST—Brown wallet with ID of Anthony Chaves, safety glasses w/green tinted lens, grey lunch box, jade earrings, Bausch & Lomb grey lens glasses, black record book, lady's green lens prescription sunglasses, Book of Chaucer LOST AND FOUND, ext. 29157.

FOUND—Lt. and dark green earrings, gold feather earring w/rhinestones, 2 aluminum, 1 brass key on clip w/masking tape, Parakeet, blue, yellow, found in Zia Park. LOST AND FOUND, ext. 29157.

Mercury Tracking Communication System Gets Its Biggest Workout

Project Mercury's tracking and communications system got its fifth and most strenuous exercise to date when MA-8 launched Astronaut Walter Schirra from Cape Canaveral into his six-orbit mission Oct. 3.

The six-orbit mission, longest scheduled to date, required somewhat broader communications coverage because the spacecraft swung over a greater area of the globe than covered in shorter missions. Three new tracking ships were added, upping the station total to 21. Four new radio links were installed to complete the system's voice coverage, interconnecting the sites to form a world-wide conference network.

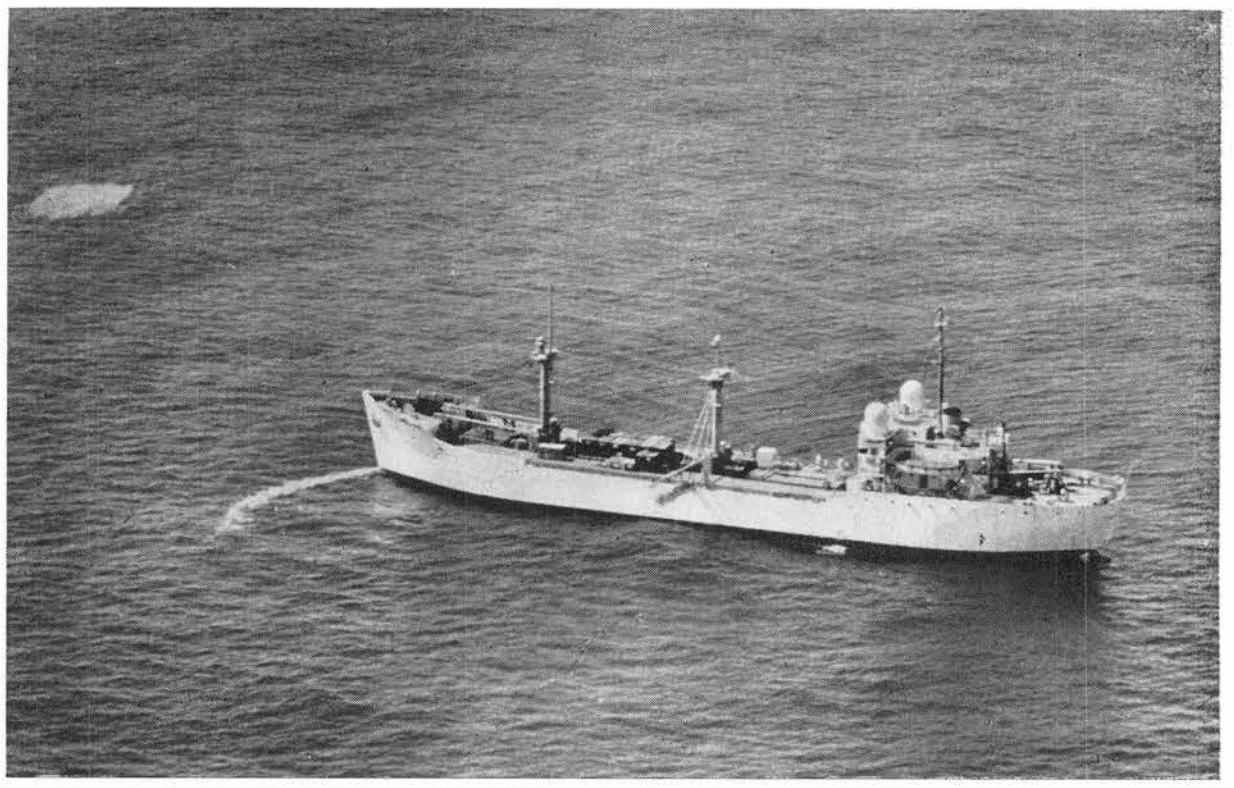
Fifteen weeks prior to Schirra's scheduled flight, Western Electric Company, which built the tracking and communications network for Mercury flights, began evaluating the system's additional global communications facilities. Continuous testing five days each week checked out the reliability of certain components and circuits and determined the network's capability to handle the new problems posed in this flight.

The three new ships plus the former Atlantic Ocean ship, USAF Rose Knot, were assigned to the Pacific Ocean over a 1500-mile stretch between the Philippines and Midway to get data on the fifth and sixth orbits.

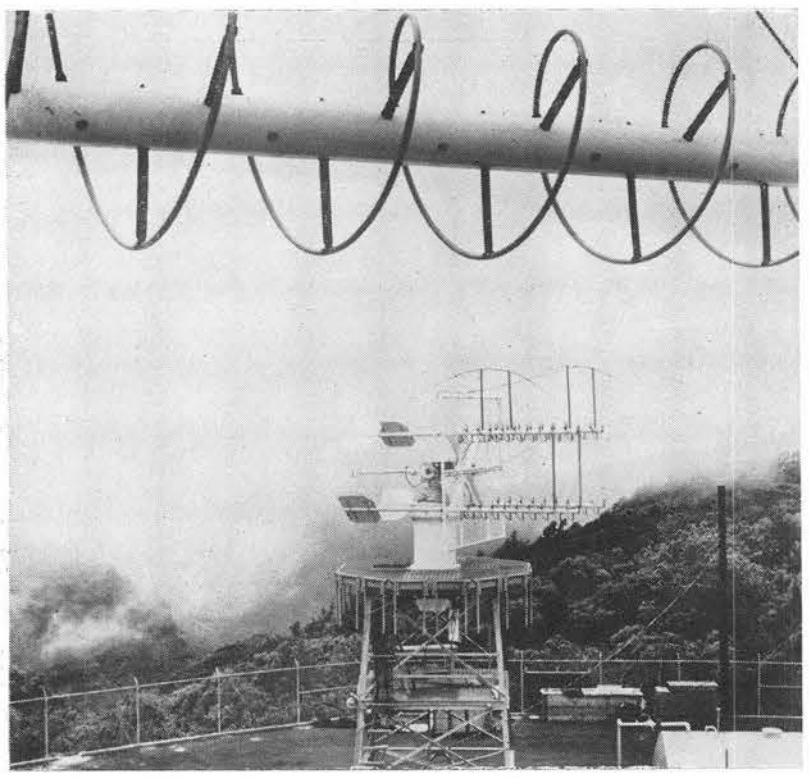
The Rose Knot was relocated to halfway between Guam and Tokyo to function as a Pacific command control point. From a position about 1000 miles west of Midway, the USNS Huntsville's primary mission was to track the fifth orbit. About 180 miles to the north the USNS Watertown concentrated on the orbit six reentry which terminated in a recovery area northeast of Midway. The third new ship, the USAS American Mariner, was posted in the same area to assist the other vessels.

These Pacific sentinels were part of a globe-girdling communications belt 30,000 miles long. An industrial team headed by Western Electric Company engineered and installed the original tracking and instrumentation facilities of this complex for the National Aeronautics and Space Administration. Although the sites were turned over to NASA for operation in July 1961, Western Electric has continued to evaluate and improve the system's communications facilities.

In all, over 140,000 circuit miles of submarine cable, radio and land line facilities criss-cross the continents of North America, Africa and Australia, as well as the Atlantic, Indian and Pacific Oceans. NASA's Goddard Space Flight Center, Greenbelt, Md., is the system's master computing and switching center. The computers here solve such problems as trajectory, acquisition times at each station and predicted impact point for the spacecraft's reentry. This data is funnelled to the Mercury Control Center at Cape Canaveral, where NASA officials made key decisions on all mission activities.



THE USAF ROSE KNOT, former Atlantic Ocean ship, was reassigned to location halfway between Guam and Tokyo to function as a Pacific command control point in Project Mercury's world-wide tracking and communications system, engineered and installed by an industrial team captained by the Western Electric Co.



ANTENNAS such as these at the Kauai, Hawaii station track round-the-world flights of Project Mercury spacecrafts. The original world-wide network was built for the National Aeronautics and Space Administration by an industrial team headed by Western Electric Company.

Bids Received for Constructing Addition To Lab Bldg. 800

Blumenthal Brothers Construction Co. of Albuquerque is apparent low bidder for construction of an addition to Bldg 800. The firm's bid of $44,877 was the lowest of three received and opened Oct. 5, according to an announcement made recently by the AEC.

Plant Engineering Department project engineer is R. G. Piper (4543). The construction will provide additional space for occupants of Bldg. 800.

Work will include installation of reinforced concrete framing, brick masonry panels, and concrete floor; heating, ventilating, electrical and lighting systems; and reworking an existing electrical substation. Work is to be completed within 80 days after the contractor receives notice to proceed.

AEC To Modify Assembly Building In Sandia Area III

Blumenthal Brothers Construction Co. was the apparent low bidder for modification work to the non-hazardous assembly building 6501 in Area III, according to an announcement by the Atomic Energy Commission. The firm's bid was $24,686.

Modifications include furnishing and installation of a six-ton craneway, removal of existing partitioning and doors, and the installation of new overhead doors.

M. B. Moore (4543-3) is the Plant Engineering Department project engineer.

15 Year Service Awards

W. C. Scrivner
3100
Oct. 13, 1947

Gilbert H. Dance
3242
Oct. 16, 1947

Ralph C. Holland
7246
Oct. 17, 1947

Lloyd A. Kelton
4573
Oct. 27, 1947

10 Year Service Awards

Oct. 13-31

Henry E. Miller 2641, G. K. Carmichael 4135, Doris R. Cole 3126, Marian G. Ewald 4131, Harold F. Howard 2543, Earl C. Saxton 7244, Lonnie D. Skinner 4513.

James M. Caller 1432, Reinhart C. Gauerke 2534, Edward L. Jolly 4600, Ernest W. Kersten 2313, Charles Z. Stuart 7524, Lucy E. Cochran 1323, Joseph O. Phillips 2534.

Russell E. Merrell 2342, Howard R. Shelton 3132, G. H. Donaldson III 2452, Dewey B. Farmer 8116, Jose M. Sanchez 4611, Fritz J. Wettin 4224.

Alex Griego 4613, Juan D. Griego 2642, Ray E. Huston 8212, Howard A. Keever 2624, Blake J. Liston 7322, Edwin R. Phillips 4421, Jack Stein 1314, Ina A. B. Alexander 3446.

William M. Lansdell 4574, Patsy H. Garrett 4234, Victor H. Osterby 4413, and Martha E. Whitford 1000.

Manuel A. Moya
4221
Oct. 27, 1947

Robert O. Morrow
2323
Oct. 29, 1947

Serious Electrical Accident Prompts Warning to Others

A serious accident occurred recently at an AEC installation involving an electronic technician's handling of electrical equipment.

The technician had just finished checking an electronic generator unit with a scope, and was disconnecting the scope probes from the plate of the final amplifier when he contacted a "ground" lead dangling from the scope probe. Before the current could be turned off, he received a shock from a 620 volt circuit through his arms. He escaped with his life, but his hands were badly burned.

Electricity is a good servant, but can be a deadly master, according to Gil Rhodes, supervisor of Safety Division 8242. Fatalities on circuits of as low as 45 volts have been recorded. A current flow through the body of 100 milliamperes is sufficient to cause heart failure.

For Sandia employees who use electrical and electronic equipment, Gil offers the following reminders to minimize hazards.

1. Whenever possible, pull the plug to de-energize circuits not needed to perform work, or turn off the switch on the circuit.
2. Ground the power supply output to discharge any filter capacitors before working on equipment.
3. Use the "one hand" rule. Work with one hand to avoid the possibility of both hands completing a fatal circuit through the body.
4. Remove only one clip lead from equipment at a time, and with one hand only.
5. All test equipment should be grounded.
6. Check power supplies for bleeder. Power supplies not equipped with bleeders should be reported to supervision.
7. Practice positive protection always. Rather than depend solely upon your dexterity, awareness, or the insulation afforded by rubber mats, make sure that circuits are adequately insulated, isolated, or disconnected.

Announce Latest 'League Standings' in Security Competition

Security at Sandia Corporation is no game—as was reported two weeks ago. But now that the baseball season is capped with the World Series another report on security standings (a la ball team standings) is in order.

Following figures are derived by taking statistics from a Sandia Corporation official report and converting them into a figure to resemble a "won-lost" percentage seen in the newspapers' sport pages.

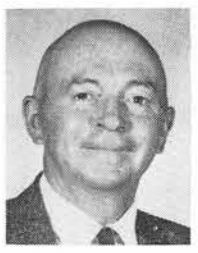
This bit of mathematical magic converts security performance statistics into familiar baseball figures. And accuracy is not sacrificed in the doing.

Here's the way they look:

Organization	Won-Lost Per Cent
6000	1.000
4000	.973
3000	.934
8000	.903
7000	.883
2000	.839
5000	.832
1000	.806

Merle C. Richard Died October 3

Merle C. Richard, Staff Assistant in Environmental Test Division 8121 until his retirement from Sandia Corporation last



June, died Oct. 3. He had been in ill health before he retired.

Mr. Richard was a pioneer employee at Livermore Laboratory, joining Sandia Corporation in Livermore June 1957, when the Laboratory was still located in temporary quarters at the Lawrence Radiation Laboratory. He was noted for his ham radio activities, operating his first station in 1916.

A resident of Livermore, Mr. Richard leaves his wife, a son, and three grandchildren.

Back Injury Topples Sandia Laboratory Safety Figures

Saturday, Sept. 29, Sandia Laboratory's safety record fell for the 16th time this year. While stepping off a 20-in. concrete support pad, a machinist working in Bldg. 840 slipped and struck his back on the step as he fell.

The employee was taken by Sandia ambulance to a local hospital for treatment. He remained in the hospital during the weekend and was then sent home for further recovery.

At the time of the accident, Sandia Laboratory employees had worked 15 days or 525,000 man-hours without a disabling injury.

Livermore Laboratory Safety Record

Livermore Laboratory safety figures appearing in the Sept. 28 issue of the **Lab News** were in error. At the time of publication, the Laboratory had worked 27 days, or 126,000 man-hours, without a disabling injury.

Sandia's Safety Record

Sandia Laboratory	*Livermore Laboratory*
HAS WORKED	HAS WORKED
350,000 MAN HOURS	201,000 MAN HOURS
OR 10 DAYS	OR 40 DAYS
WITHOUT A	WITHOUT A
DISABLING INJURY	DISABLING INJURY